SOLID WASTE FACILITY PERMIT

Under the provisions of N.J.S.A. 13:lE-1 et seq., known as the Solid Waste Management Act, this Solid Waste Facility Permit is hereby issued to:

AMERICAN REP-FUEL COMPANY OF ESSEX COUNTY

FACILITY TYPE:	Resource Recovery Facility - Mass Burn Incinerator
LOT NO. (S):	28, 30, Parts of: 20, 34, 36, 40, 50, 52, 60, 60A. 80; 92, Parts of: 18, 29, 32, 35A, 80, SOA, 90
BLOCK(S):	5000; 5001
MUNICIPALITY:	City of Newark
COUNTY:	Essex
FACILITY REGISTRATION NO.:	0714000341
EXPIRATION DATE:	November 17, 2000

This Permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection as same may be amended in the future. Any references herein to specific regulations include any future amendments thereto.

This Permit shall not prejudice any claim the State may have to riparian land, nor does it permit the Permittee to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or the New Jersey Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without proper acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

Compliance with the terms of this Permit does not relieve the Permittee of the obligation to comply with all applicable State and Federal statutes, rules and other permits.

Failure to comply with all of the conditions specified herein may result in revocation of the Permit and/or other regulatory or legal actions which the Department is authorized to institute by law.

This Permit is non-transferable without approval from the Department pursuant to N.J.A.C. 7:26-2.7(e).

Nov. 17, 1995
Date

Signed by Robert C. Ciolek, Assistant Director
Robert C. Ciolek
Assistant Director
Division of Solid and Hazardous Waste

November 17, 2000
Expiration Date

CONDITIONS FOR THE
SOLID WASTE FACILITY PERMIT FOR THE ESSEX COUNTY
RESOURCE RECOVERY FACILITY, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY

PERMITTEE: AMERICAN REF-FUEL COMPANY OF ESSEX COUNTY

FACILITY REGISTRATION NUMBER 0714000341

This Solid Waste Facility Permit is conditioned upon compliance with all applicable statutes, rules, regulations and ordinances and also upon implementation of the following:

1. Permitted Waste Types

The following solid waste materials, as identified by waste ID numbers and defined in N.J.A. C. 7:26-2.13 (g) , may be accepted for disposal at this facility:

TYPE	WASTE
10	Municipal Waste (household, commercial and institutional)
23	Vegetative Waste (except as prohibited by Condition Number 2 below)
27	Dry Industrial Waste (except those prohibited subcategories listed in condition Number 2 below)

2. Prohibited Waste Types

The following solid and liquid waste materials, as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g) and (h), and the following regulated medical waste classes as defined in N.J.A.C. 7:26-3A.6(a) , are specifically prohibited from disposal at this facility:

TYPE	WASTE
12	Dry Sewage Sludge
13	Bulky Waste
23	Vegetative Waste (bulk quantities, as defined in the Permit To Construct, Install or Alter Control Apparatus or Equipment and Temporary Certificate to Operate Control Apparatus or Equipment and Prevention of significant Deterioration Permit)
25	Animal and Food Processing Waste
27	Dry Industrial Waste, specifically all Type 27 waste from any District, service area or source which has not complied with Condition Number 16 of this Permit; and the following sub-categories only: asbestos and asbestos containing wastes; dry non-hazardous pesticides; contaminated soils; and hazardous waste as defined in N.J.A.C. 7:26-1.4, N.J.A.C. 7:26-8 and 40 CFR 261 which is generated by small quantity generators as defined in N.J.A.C. 7:26-8.3.
72	Bulk Liquid and Semi-Liquids
73	Septic Tank Clean-out Wastes
74	Liquid Sewage Sludge
Regulated Medical Waste	All classes, as defined in N.J.A.C. 7:26-3A.6(a)

3. Waste Characterization

The Permittee shall not accept and/or process waste from any New Jersey Solid waste Management District which has not completed a waste supply analysis study found acceptable and subsequently approved by the

Department. The waste supply study shall characterize the quantity and composition of the subject waste in accordance with the requirements of N.J.A.C. 7:26-2B.4(a)14 and other applicable Department rules and policies, including a demonstration of compliance with the recycling goals established in the District and State Solid Waste Management Plans and/or regulations.

4. Recyclables

a. The Permittee shall develop a recyclables inspection plan in consultation with the Essex County Solid Waste Management Plan implementing agency, and in accordance with the certified District Recycling Plan. The Permittee shall also develop recyclable inspection plans in consultation with any other New Jersey Solid Waste Management District which is to deliver waste to the facility for processing. These plans shall also be,in accordance with the applicable certified or approved recycling plans. The purpose of these plans is to ensure that bulk recyclables are not delivered and processed at the facility.

The inspection plan(s) shall include appropriate provisions of the approved and/or certified District Plans regarding enforcement and notification procedures.

The Essex County portion of the recyclables inspection plan shall be submitted to the Department within 120 days of the issuance date of this Permit. The recyclables inspection plans for the other Sol d Waste Management Districts shall be submitted to and approved by the Department prior to the Permittee accepting waste from these sources. Upon approval, the recyclables inspection plan shall be included as a section of the facility's approved Final Operations and Maintenance Manual.

b. Recyclable materials designated in the Essex County District Recycling Plan and the Recycling Plan of any sending Solid Waste Management District, service area or individual source, to be source separated in each municipality pursuant to N.J.S.A. 13:lE-99.13b(2), shall not be accepted for disposal at this facility. Loads of waste delivered to the facility which contain designated recyclable materials in excess of the threshold level of acceptability specified in each District Recycling Plan, shall be handled pursuant to the provisions of each Plan and the Recyclables Inspection Plan included in the facility Final Operations and Maintenance Manual. The Permittee shall be responsible for implementing the notification and enforcement provisions of the District Recycling Plans to the extent required by said plans. The Permittee shall identify any hauler found to be in violation of the District Recycling Plans and shall provide the necessary information to the designated enforcement agency set forth in each Plan, and to the designated municipal recycling coordinator of the -municipality from which the waste originated.

c. The Recyclables Inspection Plan, included as part of the facility Final Operations and Maintenance Manual, shall reflect the requirements of each approved District Recycling Plan at all times. Any changes made to the approved District Recycling Plans must be reflected, as necessary, in revisions to the operations and Maintenance Manual. These O&M Manual revisions shall be implemented in accordance with the procedures outlined in Condition Number 7 of this Permit.

5. Referenced Engineering Plans

The construction and operation of this facility shall be in accordance with the provisions of N.J.A.C. 7:26-1 et seq. and the following submissions:

a. "Essex County Resource Recovery Project - Engineering Design Report

- Essex County Resource Recovery Plant Solid Waste Permit Draft Engineering Design", June, 1983; prepared by the Economic Development Design Division and the Engineering Department of the Port Authority of New York and New Jersey.

b. "Proposal - Essex County Resource Recovery Facility -Volume II: Technical", prepared by Browning-Ferris Industries, Inc., dated January, 1983.

c . "Essex County Resource Recovery Project - Engineering Design Report - Essex County Resource Recovery Plant Solid Waste Permit Proposed Engineering Design", January, 1984. Prepared by the Economic Development Design Division and the Engineering Department of the Port Authority of New York and New Jersey, received by Division of Waste Management on January 26, 1984, and including the "Addenda and Errata #111, dated September, 1984.

d. "Essex County Resource Recovery Project - Environmental Impact Statement", dated October, 1983, with:

- "Volume 1 Technical Appendices"
- "Volume 2 Technical Appendices"
- "Volume 3 Technical Appendices"
- "Volume 4 Technical Appendices"
- "Volume 5 Technical Appendices":

"22. Impact on Local Streets in the Ironbound. Community of Newark, New Jersey, from Refuse Trucks Utilizing the Proposed Essex County Energy Recovery Plant", prepared by Konheim and Ketcham and the Port Authority of New York and New Jersey, dated January, 1984.

e. "Essex County Resource Recovery Project - Environmental Impact Statement - Responses to Comments" and accompanying drawings, received by the Division of Waste Management on June 25,1984.

f. "Essex County Resource Recovery Project - Environmental Impact Statement - Responses to Comments No. 2" and accompanying drawings, received by the Division of Waste Management on October 23, 1984.

g. Letter dated September 30, 1988, from Mark A. Chertok, representing American Ref-Fuel Company of Essex County, to Terry McAdams of the Division of Solid Waste Management, transmitting modification to the turbine generators and air cooled condensers which included specification for purchased equipment.

h. Letter dated January 30, 1990, from Wayne Sadik, P.E., American Ref-Fuel, to Charles DeWeese, Division of solid Waste Management, transmitting responses to comments raised on January 24, 1:989 regarding modifications to turbine-generators and air cooled condensers.

i. Letter of April 27, 1990, from Mark A. Chertok, representing American Ref-Fuel, to Kenneth Frank, Division of Solid Waste Management, submitting Port Authority of New York and New Jersey Contract ERR-120.103 and contract plan for the site access road.

j. Letter dated July 16, 1990, from Wayne Sadik, P.E., American Ref-Fuel, to Charles DeWeese, Division of Solid Waste Management, transmitting responses to comments dated May 16, 1990 regarding modifications to turbine generators and air cooled condensers.

k. Letter dated August 29, 1990, from John Waffenschmidt, American Ref-Fuel, to Charles DeWeese, Division of solid Waste Management, transmitting as-built designs detailing modifications to various aspects of the facility.

l. Letter of October 12, 1990, from John Waffenschmidt, American Ref-

Fuel, to Charles DeWeese, Division of Solid Waste Management, transmitting responses to comments dated September 26, 1990 regarding modifications to the turbine-generators, air-cooled condensers and other modifications to the facility.

m. Letter of October 12, 1990, from Deborah Schneekloth, Port Authority of New York and New Jersey, to Charles DeWeese, Division of Solid Waste Management, transmitting signed and sealed designs reflecting modifications to the site access road.

n. The following drawings prepared by the Port Authority of New York and New Jersey, sealed and signed by Harry Schmerl, N.J.P.E. License Number 19427:

Number	Title	Revision	Date
G-4	Site Access Road-Location Plan, Abbreviations, General Notes and Legends	-	10/11/88
C-1	Site Access Road-Existing Conditions	-	10/11/88
C-2	Site Access Road-Existing Conditions	-	10/11/88
C-3	Site Access Road-Horizontal Alignment Plan 1 of 2	-	10/11/88
C-4	Site Access Road-Horizontal Alignment Plan 2 of 2	1	2/10/89
C-11	Site Access Road-Grading and Drainage Plan	1	10/28/89
C-12	Site Access Road-Grading and Drainage Plan	1	2/10/89
C-13	Site Access Road-Roadway Cross Sections	1	10/28/88
C-28	Site Access Road-Signing and Striping Plan I of 2	1	10/28/90
C-29	Site Access Road-Signing and Striping Plan 2 of 2	1	2/10/90

o. The following drawing, prepared by Parsons-Brinckerhoff, for the Port Authority of New York and New Jersey, sealed and signed by M. Yalcin Tarhan, N.J.P.E. License Number 22766:

S-1 Site Access Road - Conrail Bridge Over Access Road -Plan, Longitudinal Section and Structural General Notes Revision 1, 10/28/88.

p. Final Landscape Plan, dated August 29, 1990, signed and sealed by Robert Charles Preston, N.J. Certified Landscape Architect, Number AS00038.

q. The following drawing, prepared by Gibbs and Hill, Inc., sealed and signed by Alfred G. DeMenna, New Jersey Professional Engineer License Number 19399:

W1016R Fly Ash Immobilization Flow, Revision 1, 8/10/90

r. The following drawings, prepared by Gibbs and Hill, Inc., sealed and signed by Vinubhai F. Patel, New Jersey Professional Engineer License Number 30048:

ElSC-0012, As Drilled Boring Location Plan, Revision F,10/22/92

ECSC-0130, Final Grading and Drainage Plan - Sheet 1 of 3, Revision 11, 10/22/92

ECSC-0131, Final Grading and Drainage Plan - Sheet 2 of 3, Revision 10, 10/22/92

ECSC-0132, Final Grading and Drainage Plan - Sheet 3 of 3, Revision 10, 10/22/92

ECSC-0135, Final Grading and Drainage Details - Sheet 1,Revision 6, 10/20/92

ECSC-0136, Final Grading and Drainage Details - Sheet 2,Revision 8, 10/20/92

ECSC-0160, Sanitary Pipe Plan, Revision 2, 11/10/93

s. The following drawings, prepared by Gibbs and Hill, Inc., sealed and signed by Peter A. Totten, New Jersey Professional Engineer License Number 27566:

ElMP-0002, Plumbing & Drainage Symbol List, Schedule, General Notes and Details, Revision 11, 11/10/93

ElMP-0003, Plumbing Drainage & F. P. Symbol List, Schedule and Details, Revision 11, 11/10/93

ElMP-0100, Fire Protection Flow Diagram, Revision 7, 12/23/92

ElMP-0101, Potable Water Sanitary & Oily Waste Flow Diagram, Revision 5, 12/23/92

ElMP-1402, Plumbing Drainage and Fire Protection EL. 111-211, Revision 9, 11/10/93

ElMP-2000, Plumbing & Drainage Miscellaneous Bldgs., Plans, Details & Diagrams, Revision 7, 12/23/92

ElMP-2200, Yard Piping - Plumbing, Drainage, Protection and Potable Water, Revision 13, 12/23/92

EIMP-2201, Yard Piping - Plumbing, Drainage, Fire Protection and Potable W

ElMP-2202, Yard Piping - Plumbing, Drainage, Fire Protection and Potable Water, Revision 8, 11/10/93

ElM-0002, General Arrangement Plan at EL. 111-211, Revision 3, 11/9/93

ElM-0003, General Arrangement Plan at EL. 291-211, Revision 4, 11/9/93

ElM-0004, General Arrangement Plan at EL. 491-611, Revision 3, 11/9/93

ElM-0005, General Arrangement Plan at EL. Is 791-81/411, 791-1111, 801-111, 841-1011, 871-611 and 1011-111, Revision 3, 11/9/93

ElM-0005A, Miscellaneous Boiler Platforms, Revision 4, 11/9/93

ElM-0006, General Arrangement Sections A-A, B-B, and C-C, Revision 5, 11/9/93

E1M-0101, Flow Diagram Main Steam and Dump Steam Systems, Revision 8, 9/22/92

ElM-0103, Flow Diagram Feedwater System, Revision 8,11/29/93

ElM-0104, Flow Diagram Condensate and Make-Up Water Systems, Revision 7, 11/29/92

ElM-0105, Flow Diagram Closed Loop Cooling Water System, Revision 6, 11/29/93

ElM-0106, Flow Diagram Fuel Oil & Diesel Generator Piping, Revision 7, 9/22/92

ElM-0107, Flow Diagram Instrument and Plant Air Systems, Revision 8, 11/29/93

ElM-0108, Flow Diagram Heater Vents and Drains Systems, Revision 6, 9/24/92

ElM-0110, Flow Diagram Boiler Blowdown and Drains, Revision 8, 9/24/92

ElM-0111, Flow Diagram Turbine Drains & Misc. Vents & Drains, Revision 5, 11/29/93

ElM-0115, Flow Diagram Raw, Demineralized & waste water Systems, Revision 7, 9/24/92

ElM-0102, Flow Diagram Extraction Steam and Auxiliary Steam Systems, Revision 8, 9/22/92

t. The following drawings, prepared by Gibbs and Hill, Inc., sealed and signed by Harry Victor Okabayashi, New Jersey Professional Engineer License Number 33620:

ElE-0001, Symbols, Legend & General Notes, Revision 4,7/24/92

ElE-0100, Main One Line Diagram, Revision 7, 7/24/92

ElE-0101, 4160V MCC One Line Diagram, Revision 5, 7/24/92

u. The following drawings, prepared by American Ref-Fuel, sealed and signed by George A. Jarvi, New Jersey Professional Engineer License Number GE 29637:

F-009, Expanded Permit Application Heat Balance - Case I, Revision 2, 3/13/95

F-010, Expanded Permit Application Heat Balance - Case II, Revision 2, 3/13/95

F-011, Expanded Permit Application Water Balance - Case I, Revision 1, 3/13/95

F-012, Expanded Permit Application Water Balance - Case II, Revision 1, 3/13/95

v. The following Sierra Environmental Engineering, Inc. drawings, signed and sealed for as-built verification for permitting, by Dominick F. Golino, New Jersey Professional Engineer No. 27351:

90237-00, Rev. 1, 1-13-95, Standard Legend

90237-01, Rev. 6, 1-24-95, Thermal DeNOx System P & ID (sheet 1 of 2)

90237-01, Rev. 6, 1-13-95, Thermal DeNOx System P & ID (sheet 2 of 2)

90237-02, Rev. 2, 1-13-95, Thermal DeNOx System Piping -Boiler Area (sheet 1 of 2)

90237-02, Rev. 2, 1-13-95, Thermal DeNOx System Piping -Boiler Area (sheet 2 of 2)

90237-05, Rev. 1, 1-13-95, Thermal DeNOx System Pumps

90237-07, Rev. 1, 1-13-95, Thermal DeNOx System Plot Plan

90237-08, Rev. 2, 1-13-95, Thermal DeNOx System Headers

90237-09, Rev. 3, 1-13-95, Thermal DeNOx System Injector Assembly

90237-10, Rev. 3, 1-13-95, Thermal DeNOx System Flex Hose Assembly

90237-11, Rev. 1, 1-13-95, Thermal DeNOx System Vaporizers

90237-03, Rev. 2, 1-13-95, Thermal DeNOx System Ammonia Tank

90237-04, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Tank (Puraps) Piping Details (sheet 1 of 2)

90237-04, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Tank (Pumps) Piping Details (sheet 2 of 2)

90237-06, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Control Skid General Arrangement for Boiler 2 & 3 (sheet 1 of 6)

90237-06, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Control Skid General Arrangement (sheet 2 of 6)

90237-06, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Control Skid Support for Boiler 2 & 3 (sheet 3 of 6)

90237-06, Rev. 4, 1-13-95, Thermal DENOX System Ammonia Control Skid General Arrangement f or Boiler - I (sheet 4. of 6)

90237-06, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Control Skid Support for Boiler - 1 (sheet 5 of 6)

90237-06, Rev. 4, 1-13-95, Thermal DeNOx System Ammonia Control Skid General Arrangement for Boiler - 1 (sheet 6 of 6)

90237-102, Rev. 2, 1-24-95, Thermal DeNOx System Field Wiring Diagram

90237-101, Rev. 4, 1-13-95, Ammonia Storage System Power and Instrument Wiring Diagram

w. Drawing No. SK-100494, Rev. 0, 10-4-94, Plot Plan Ammonia Storage Tank, signed and sealed by Daniel R. Ramirez, NJ Professional Engineer (No. 38419).

x. Letter dated October 19, 1994, from Peter D. Pohlot, American Ref - Fuel, and letter attachments Number 2, 3, 4 and attachment 6, as it pertains to the Thermal DeNOx system operations.

y. Letter dated November 8, 1994 from Peter D. Pohlot, American Ref-Fuel.

z Letter dated February 24, 1995, from Marty Suchan of American Ref-Fuel Company of Essex County, to Director Kenneth Hart of the Division of Solid Waste Management.

aa. "American Ref-Fuel/Essex County Resource Recovery Facility - Nighttime Waste Delivery Noise Study Report Final Report - February, 9511, prepared by Analysis and Computing, Inc., Hicksville, NY.

bb. Hourly waste delivery truck data for the period of December 7, 1994 through February 7, 1994, submitted by American Ref-Fuel Company of Essex County, with the letter dated February 24, 1995.

cc. Letter dated February 28, 1994, from Peter D. Pohlot, American Ref-Fuel, enclosing revised drawings, revised Final O&M sections and impact analyses as they relate to the modified Ferrous Recovery System.

dd. "Solid Waste Permit Renewal Application, January, 199511, submitted by American Ref-Fuel, along with cover letter dated May 19, 1995.

ee. Letter dated January 14, 1994 and attachments from John G. Waffenschmidt, American Ref -Fuel, forwarding a request for solid waste facility permit modification to increase waste processing capacity.

ff. Letter dated July 8, 1994 and attachments from Peter D. Pohlot, American Ref -Fuel, providing amendments to the request for solid waste facility permit modification to increase waste processing capacity.

gg. Letter dated November 7, 1994 and attached heat and water balances from Peter D. Pohlot, American Ref-Fuel, amending the request for solid waste facility permit modification to increase waste processing capacity.

hh. Letter dated March 15, 1995 from Peter D. Pohlot, American Ref-Fuel, forwarding an addendum to the request for solid waste facility permit modification to increase waste processing capacity.

ii. Letter dated May 24, 1995 from Peter D. Pohlot, American Ref-Fuel, providing further clarification regarding the request for solid waste facility permit modification to increase waste processing capacity.

jj. Drawing No. ECSC-0111, Site Plot Plan, Rev. 1, dated August 2, 1995, prepared by Daniel R. Ramirez, NJ Professional Engineer License No. 38410.

kk. The following drawings prepared by George A. Jarvi, NJ Professional Engineer License No. GE29637:

F-013 (Sheet 1 of 2), Process Flow Diagram Mass Balance, Revision 1, dated August 5, 1995.

F-013 (sheet 2 of 2), Process Flow Diagram Mass Balance, Revision 1, dated August 5, 1995.

In case of conflict, the most recent revisions and supplemental information shall prevail over prior submittals and designs, and the conditions of this Permit shall supersede those of the engineering design and environmental impact statement referenced above.

6. Facility Construction Activities

Any future excavation work on the facility site shall be conducted in accordance with approvals obtained from the Department's office responsible for site remediation activities, as required.

7. Operations and Maintenance Manual

Changes to be made to the Final Operations and Maintenance (O&M) Manual shall be reviewed and approved by the Department in conformance with N.J.A.C. 7:26-2.11(b) 18. Within fifteen (15) days of its receipt, the submission made by the Permittee to revise the approved Final O&M Manual shall be characterized by the Department regarding the nature of the revision relative to N.J.A.C. 7:26-2.6(d), and the Permittee shall be notified of the Department's finding. Any submission to revise the Final O&M Manual by the Permittee, which is determined by the Department to be a minor modification in accordance with N.J.A.C. 7:26-2.6(d) or is determined to require a minor technical review, shall be deemed approved unless denied within fifteen (15) calendar days of the date of its receipt.

8. Community Relations Plan

The Permittee shall implement a community relations plan which identifies the steps the Permittee will take to transfer information and solicit input from the community in which the facility is located. This plan shall be maintained as a section of the Final Operations and Maintenance Manual. At a minimum, the community relations' plan shall provide for the following:

a. Annual open meetings with the local officials, or their representatives, and the general public of the district where the facility is located. Notification of the open meeting to be held shall also be provided to the general public of the districts serviced by the facility. The purpose of these meetings is to allow public input and to provide a forum for exchanging ideas; and

b. A notification procedure, whereby the public is provided a report of findings in the case of an emergency incident at the facility.

9. Facility Personnel Training

The Permittee shall comply with the following requirements pertaining to facility personnel training:

a. All personnel who are directly involved in facility waste management activities or who operate, service or monitor any facility equipment, machinery or systems shall successfully complete an initial program of classroom instruction and on-the-job training that includes instruction in the operation and maintenance of the equipment, machinery and systems which they must operate, service or monitor in the course of their daily job duties, and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of N.J.A.C. 7:26-1.1et seq., and the conditions of all Department permits issued to the facility;

b. The training program shall be directed by a person thoroughly familiar with the technology being utilized at the facility, the applicable waste regulations contained within N.J.A.C. 7:26-1.1et seq., and the conditions of the facility's permits;

c. The training program shall ensure that facility personnel are able to effectively respond to any equipment malfunction or emergency situation that may arise. The training program shall provide instruction in the use of personal safety equipment, machinery and monitoring systems (including any emergency equipment), the use of communications and/or alarm systems, the procedures to be followed in response to fires, explosions or other emergencies, and the procedures to be followed during planned or unplanned shutdown of operations;

d. Facility personnel shall successfully complete the initial training program within six (6) months after the date of their employment or assignment to the facility. Employees shall not work in unsupervised positions until they have completed the training program required herein;

e. Facility personnel shall take part in a planned annual review of the initial training program;

f. Training records that document the type and amount of training received by current facility personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least one (1) year from the date the employee last worked at the facility; and

g. The Permittee shall maintain a written training plan which includes the type and amount of both the initial and follow-up training to be provided to facility personnel. This written plan shall be maintained as a section of the Final Operations and Maintenance Manual.

10. Facility Staffing

The facility shall maintain sufficient trained personnel during each scheduled shift to assure the proper and orderly operation of all system components, along with the ability to handle all routine facility maintenance requirements. Such personnel shall have sufficient educational background, employment experience and/or training to enable them to perform their duties in such a manner as to ensure the facility's compliance with applicable Dep6rtment regulations and permits, the conditions of this Permit and all other permits or approvals issued to the facility, and the safe operation of the specific processes utilized at the facility.

Each scheduled shift shall have a fully trained and qualified facility representative, who is designated and authorized by the Permittee, to direct and implement all operational decisions during that shift and who shall also serve as the designated emergency coordinator for the

implementation of any emergency procedures in accordance with Condition Number 26 of this Permit. A facility plant manager and/or operations manager shall also remain on-call at all times to provide assistance during emergency situations.

Additionally, the facility shall have under contract a New Jersey licensed professional engineer as a consultant, or (preferably) on staff, to oversee the general facility operations. This engineer shall possess experience in the design and operation of the major system components and equipment that constitute the facility. If on staff, this engineer may also serve as the plant manager or operations manager.

11. Waste Delivery Schedule

a. Waste may be accepted for processing at the facility twenty-four (24) hours per day, weekly Monday through Saturday.

Waste deliveries to the facility shall be scheduled in such a manner as to minimize truck queuing on the facility property. Delivery trucks shall not be allowed to back up on to public roads.

b. For a period of 180 days from the date of Permit issuance, the Permittee shall monitor and record the turnaround time for every truck delivering waste to the facility between the hours of 9:00 AM to 3:00 PM, during each day of waste receipt. "Turnaround time" is defined as that time period measured from the time the vehicle is weighed in at the scale house, to the time that the same vehicle weighs out and exits the facility.

The Permittee shall compile daily lists of vehicle turnaround times during the required monitoring period. These records shall be kept on file at the facility for a period of three years from the date of collection. During this 180-day period, the Permittee shall submit a report to the Department on a monthly basis, which lists each vehicle turnaround time that equals or exceeds 60 minutes. For all such vehicles, the Permittee shall endeavor to define the reason(s) for the turnaround time exceeding 60 minutes.

Following this 180 day monitoring period, should the Department find that a large number of delivery trucks have exceeded the 60 minute turnaround time, the Department may require the Permittee to continue monitoring, and recording turnaround times for an additional period of time, as specified by the Department. In addition, the Department reserves the right to require the Permittee to develop and implement a truck traffic mitigation plan to rectify the excessive turnaround times. Such a plan shall be approved by the Department prior to implementation.

12. Haulage Vehicles

The Permittee shall allow only vehicles properly registered with the Department for the transportation of waste, pursuant to N.J.A.C. 7:26-3, to deliver and deposit waste at the facility, or to remove process waste residues, unprocessible materials or bypass waste from the facility.

The Permittee shall implement the necessary steps to prevent the continued acceptance of any haulage vehicles not equipped with exhaust silencer systems or that create excessive noise. The Permittee shall maintain a program to notify affected vehicle owners of the problem and to inform said owners that the situation must be corrected or the vehicle will be denied access to the facility.

13. Waste Delivery Haul Routes

The Permittee shall assist, as needed, the Essex County Solid Waste Management District and any other Solid Waste Management District, service area or source which delivers or is to deliver waste to the facility, in the development of primary refuse truck delivery routes from each District

or collection area served by the facility. These delivery routes shall consist of major arteries that transgress non-residential areas to the greatest extent possible. Delivery access to the facility from Essex County shall be as prescribed in the approved Essex County District Solid Waste Management Plan. Haulage vehicles, traveling to and from the facility from Solid Waste Management Districts, service areas, or sources other than Essex County, shall be restricted by the District Solid Waste Management Plan and/or contracts to the use of New Jersey Turnpike Exit 15E, or other access routes approved by the Department. The Permittee shall assure that the sending Solid Waste Management Districts, service areas, or sources have designated delivery routes to the resource recovery facility using the New Jersey Turnpike (Exit 15E) or other Department approved routes as the primary access point, prior to accepting waste deliveries from these Districts, service areas, or sources. These routes shall also be prescribed in the applicable District Solid Waste Management Plans.

14. On-Site Traffic Control

On-site traffic control measures shall be maintained to provide for orderly vehicular movement on the facility grounds. The measures implemented shall include the appropriate use of lane delineations, signals, signs, barriers or any combination thereof to ensure a controlled flow of traffic delivering waste to the facility through the scale to the tipping floor, then leaving the tipping floor and exiting the facility through the scale. Trucks carrying ash residue, recovered metals, unprocessible wastes or bypass wastes from the facility shall be similarly controlled and directed to minimize interference with waste delivery traffic. All onsite roadways used by haulage vehicles shall be constructed in accordance with standards for heavy truck usage and shall be maintained in accordance with these standards. Signs shall be posted on all facility roadways indicating a maximum speed limit for the facility site.

15. Waste Acceptance and Processing Rates

a. At no time shall waste be delivered to the facility at a rate exceeding the facilities capacity to store and process such waste. Waste storage is allowed in only those areas specifically identified in the design for such purposes. Under no circumstances shall waste be deposited beyond the confines of the refuse pit, except for the purpose of conducting incoming waste load inspections and holding unauthorized materials in accordance with Condition Number 16, or storing unprocessible materials such as oversize bulky waste in accordance with Condition Number 28, or unless otherwise approved by the Department. Further exception to this limitation is granted in the case of transfer trailer unloading operations within the tipping hall, where the nature of the operation requires trailer contents to be unloaded onto the tipping floor before the waste is moved into the pit by means of a front end loader. Under such circumstances, the unloading activity being conducted, and the waste materials staged temporarily on the tipping floor, shall not be allowed to restrict the fluid movement of other haulage vehicles into and out of the tipping hall.

b. The facility shall not process waste in excess of 914,325 tons per reporting year as determined by means of the facility truck scale records, used in conjunction with a pit level determination made at the beginning of each reporting year to adjust for the storage differential. For the purposes of definition, the reporting year shall begin January 1, 1996 and end on December 31, 1996 (the quantity of waste charged annually shall be prorated over that remaining portion of the calendar year of facility operation at the time of permit renewal, so that the annual limit established herein shall not be exceeded). The facility's rate at which it can process solid waste shall be further limited to a corresponding maximum steam production rate of 920,928 pounds per boiler (at a temperature of approximately 750 degrees F. and a pressure of approximately 630

psig) over any discrete block average four (4) hour period of time (12-4AM, 48AM, 8-12PM, etc.).

Should the Essex County Board of Chosen Freeholders elect to formally amend the approved Essex County District Solid Waste Management Plan in accordance with N.J.S.A. 13:IE-23, to reflect an increase in facility processing rate from 914,325 tons per year to 985,500 tons per year, then the previously stated "waste acceptance and processing rates" (b) limits shall be altered as follows:

The facility shall not process waste in excess of 985,500 tons per reporting year as determined by means of the facility truck scale records, used in conjunction with a pit level determination made at the beginning of each reporting year to adjust for the storage differential. For purposes of definition, the reporting year shall begin on January 1, 1996 and end on December 31, 1996 (the quantity of waste charged annually shall be prorated over that remaining portion of the calendar year of the facility operation at the time of permit renewal, so that the annual limit established herein shall not be exceeded). The facility's rate at which it can process solid waste shall be further limited to a corresponding maximum steam production rate of 990,000 pounds per boiler (at a temperature of approximately 750 degrees F. and a pressure of approximately 630 psig) over any discrete block average four (4) hour period of time (124AM, 4-8AM, 8-12PM, etc.).

16. Unauthorized Waste

A program shall be maintained to detect and remove unauthorized and prohibited wastes from the waste stream entering the facility. This program shall include the Recyclables Inspection Plan to be included in the approved Final Operations and Maintenance Manual, and at a minimum, shall also include the following steps:

a. i. Identification of all haulers handling waste type 27 and a determination of all sources of type 27 waste materials. All firms capable of generating type 27 waste within the facility I s service area shall be notified and required to provide appropriate descriptions of the waste which they generate. Appropriate analyses shall be conducted on those sources questionable for disposal at the facility. These steps comprise what shall be known as an "industrial waste survey".

Any New Jersey Solid Waste Management District which is to send waste to the facility, shall conduct and periodically update the industrial waste survey and subsequently provide the information to the Permittee. At his discretion, the Permittee may conduct and periodically update the industrial waste survey for any Solid Waste Management District. In any case, the Permittee is prohibited (in accordance with Condition Number 2 of this Permit) from accepting AU type 27 waste from any New Jersey Solid Waste Management District for which an industrial waste survey has not been performed, and for which said 'survey has not been reviewed and approved by the Department.

ii. For any waste to be received from outside of a New Jersey Solid Waste Management District for which an industrial waste survey has not been previously performed, the Permittee shall take steps to ensure that such wastes are devoid of unacceptable subcategories of wastes, as per Condition 2 of this Permit. The steps to be taken shall include, but not be limited to, the conditioning of all contracts with parties responsible for supplying waste to the facility, to preclude such wastes from being delivered to the facility. Further, the Permittee, in accordance with obligations set forth in

this Solid Waste Facility Permit, shall conduct an educational and informational program directed to the parties responsible for the waste supplied to the facility, and the individual haulers that will be collecting and transporting waste to the facility from the out-of-District sources. For any discrete waste source from a specific geographic area, other than a New Jersey Solid Waste Management District to which has a contract with the Permittee to dispose of wastes at the facility for a period equal to or greater than one (1) year, the Permittee shall conduct or cause to be conducted, an industrial waste survey as defined at Condition 16.a.i. of this Permit, or an equivalent analysis as approved by the Department. Any combination of contracts with a waste source, whose collective terms equal or exceed one (1) year within a rolling five year period, shall also be considered subject to an industrial waste survey as defined herein. This requirement to conduct or cause to be conducted, an industrial waste survey for sources other than New Jersey Solid Waste Management Districts, will apply only when the total quantity of waste received from outside of New Jersey Solid Waste Management Districts is greater than ten percent of the facility's annual processing capacity, as defined in Condition Number 15 of this Permit, during the preceding calendar year. This survey shall be reviewed and approved by the Department prior to accepting waste from the source in question.

iii. Specific type 27 sources shall be excluded for disposal at the facility in accordance with the prohibited subcategories of type 27 waste listed in Condition Number 2 of this Permit. The Permittee may also exclude other specific sources of type 27 waste in accordance with its Service Agreement, and/or based on the results of the information supplied by the generator, and the Permittee's determination that a given type 27 waste should be directed to another disposal facility suitable for the waste characterized.

b. The Permittee shall conduct an education and information program on an on-going basis, to ensure that waste generators and transporters are fully aware of the facility's acceptable and prohibited waste types, waste acceptance procedures, facility rules and regulations, and penalties associated with delivering or attempting to deliver unauthorized or hazardous wastes.

c. The Permittee shall maintain a sign at or near the scale house which clearly indicates acceptable and prohibited waste types. The penalties for false certification and unauthorized waste delivery shall also be included in the sign.

d. Continuous visual monitoring of the incoming waste shall be conducted by both the tipping floor attendant and the crane operators. In addition, random inspections of incoming waste loads shall be conducted.

The crane operator and/or tipping floor attendant shall immediately notify the shift foreman or shift supervisor and plant security personnel, should suspect unacceptable waste be discovered. Unauthorized materials found by the visual inspection program shall not be charged to the feed hoppers; appropriate measures shall be taken to remove the materials safely from the refuse bunker. In particular, the crane operators and the floor attendants should be trained to search for, identify and safely remove the following materials:

- Drums or other large metal, plastic or fiberboard containers with unknown contents
- Bulk sludges or wet solids not characteristic to municipal solid waste
- Large amounts of oil or liquid-soaked solids or sorbents

- Military ordnance or other explosives
- Large pressurized containers
- Any suspicious, enclosed package

Any suspected hazardous waste, drums, or liquids found in a load accepted at the facility shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner, and the discovery of any suspected hazardous wastes at the facility shall be immediately reported to the N.J.D.E.P. Environmental Action Line at (609) 292-7172. The Permittee shall secure the name of the collector-hauler suspected of delivering hazardous waste to the facility and related information surrounding the incident, if available, and shall make this information known to the Department's enforcement personnel.

17. Maintenance and Repair

Through an effective inspection, planned maintenance, repair and parts replacement program, the facility systems and related appurtenances shall at all times be kept in proper operating order. As part of this program, the Permittee shall maintain an appropriate inventory of spare parts and replacement equipment. Malfunction of instrumentation used to monitor process operations for environmental effects, that prevents the continued processing of waste in compliance with this Permit, shall be considered a major equipment malfunction as defined in Condition Number 26 of this Permit, and action shall be taken accordingly.

The results of all inspections shall be recorded in an inspection log. These records shall be maintained centrally in the facility for a minimum of five (5) years from the date of inspection. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations, and the date and nature of any repairs or other remedial actions taken. These records shall be made available for inspection by the appropriate representatives of the Department upon request.

18. Housekeeping

Routine housekeeping and maintenance procedures shall be implemented within the facility interior to prevent the excess accumulation of dust and debris, and to maintain general cleanliness in the working environment. The tipping floor shall be cleaned at least once daily. Housekeeping compliance in the recovered metals and ash residue areas of the facility, shall be governed by the Stipulation of Settlement (OAL Docket No. ESW 11501-93N, Agency No. SWS-SW-05317-SW) as approved by Thomas E. Clancy, Administrative Law Judge, on November 3, 1994.

Facility exterior grounds shall be maintained in a manner free of litter, debris, and accumulations of unprocessed waste, process end products and residues. All paved areas on-site shall be swept on a routine basis to minimize the accumulation of loose dust/dirt on the pavement surfaces.

Additionally, the Permittee shall conduct routine street cleaning on the public truck access routes in the immediate vicinity of the facility.

Unprocessed waste feedstock, facility process waste residues and effluents stored in pits, bins or similar containment vessels shall at all times be kept at levels that prevent spillage and overflow.

19. Building Exterior Facings & Landscaping

The exterior facings of all facility building and equipment structures shall be maintained in a manner in keeping with the original design intent to enhance the appearance of the property.

All vegetation planted as part of the original landscaping plan shall be maintained and replaced as needed.

20. Wastewater Disposal

Wastewater discharges generated from facility operations shall be directed solely to the system designed and approved for the acceptance of such discharge, and shall comply with the provisions of the Passaic Valley Sewerage Commission authorization.

21. Noise Control

Noise control measures shall be maintained so that sound levels generated by the facility operation shall not exceed the standards set forth by the New Jersey State Noise Control Regulations under N.J.A.C. 7:29-1et seq.

22. Odor Control

The operation of this facility shall not result in odors associated with solid waste being detected off-site by sense of smell in any areas of human use or occupancy.

Tipping floor entrance and exit doors shall remain closed at all times other than the normal, scheduled refuse truck delivery hours.

The refuse storage pit and tipping area shall be maintained at a negative internal pressure to prevent the release of odors to the ambient air. Air drawn off from these areas shall be utilized in the combustion chambers.

If a facility outage or other condition results in odor being detectable off-site, a commercial/industrial strength odor masking agent shall be applied in the refuse bunker area.

Should a total facility outage occur, and said outage is determined to be long-term in nature (that is, longer than 3 days), the Permittee shall remove all waste in storage at the facility and dispose of it at the appropriate disposal facility,- in accordance with N.J.A.C. 7:26-6.

23. Vermin-Control

The Permittee shall institute and maintain an effective vermin control program at the facility, directed by a qualified applicator of pesticides in accordance with the New Jersey Pesticide Control Code N.J.A.C. 7:30-1.1 et seq.

24. Fire Protection

The fire detection and protection system shall be maintained in operable condition at all times. Fire-fighting equipment shall be available on-site or on call to extinguish any and all fires. Fire-fighting procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance and hospital facilities.

25. Aqueous Ammonia Release Protection

Equipment, piping, pumps and related equipment used in the unloading, transport and storage of aqueous ammonia, or used to detect, control and contain the spillage of aqueous ammonia, shall be maintained in an operable condition at all times. Equipment comprising the aqueous ammonia system shall be routinely inspected to ensure the structural and mechanical integrity of all components including, but not limited to, storage vessels, pumps, piping, gauges, valves, fittings, valve packings and gaskets.

Protective equipment used by employees directed to respond to system leaks or spills shall be readily accessible for this purpose, and shall be maintained in good working order at all times. Operating/safety procedures specific to the handling of aqueous ammonia shall be posted in the work area affected. The procedures shall include a listing of telephone numbers for the local ambulance and hospital facilities, and local and State level emergency response centers.

26. Emergency Situations

An emergency situation is defined as the occurrence of a f ire, explosion or uncontrolled pollutant discharge or emission to the environment. In the case of an emergency, the plant operator or the emergency coordinator identified in the contingency plan shall implement the following actions:

a. Immediately identify the character, exact source, amount and extent of any discharged materials and notify appropriate State or local agencies with designated response roles, if assistance is needed.

b. Concurrently, the plant operator or emergency coordinator shall assess possible hazards to public health or the environment that may result from the discharge, fire or explosion. This assessment shall consider both direct and indirect effects.

c. If the plant operator or emergency coordinator determines that the facility has had an uncontrolled discharge, a discharge above standard levels permitted by the Department, or a fire or explosion, he shall:

   i. Immediately notify appropriate local authorities if an assessment indicates that evacuation of local areas may be advisable;

   ii. Immediately notify the Department at (609) 292-7172; and

   iii. When notifying the Department, report the type of substances and the estimated quantity discharged, if known, the location of the discharge, actions the person reporting the discharge is currently taking or proposing to take in order to mitigate the discharge, and any other information concerning the incident which the Department may request at the time of notification.

   Nothing in this condition shall be deemed to supersede any notification required pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10.23 et seq., Hazardous Substance Discharges: Reports and Notices, N.J.A.C. 7:1-7, or the air pollution notification required pursuant to N.J.S.A. 26:2C-19.

d. The plant operator shall take all reasonable measures to ensure that fires, explosions and discharges do not recur or spread to other areas of the facility. These measures must include, where applicable, the cessation of process operations and shall involve the collection and containment of released waste.

e. Immediately after an emergency, the plant operator or emergency coordinator shall provide for the appropriate treating, storing or disposing of waste, contaminated soil or water, or any other material contaminated as a result of the discharge, fire or explosion.

f. The plant operator or emergency coordinator shall ensure that no waste is processed in the affected unit or area until cleanup procedures are completed and all emergency equipment listed in the contingency plan is again fit for its intended use.

g. The plant operator or emergency coordinator shall notify the Department and appropriate local authorities when operations in the affected area(s) of the facility have returned to normal.

For incidents not covered by other Department rules and reporting requirements, the plant operator or emergency coordinator shall submit a written report on the incident to the Department within fifteen (15) days after the incident. The report shall include, but not be limited to: the name, address and telephone number of the facility; the date, time and description of the incident; the extent of the injuries, if applicable,

with names and responsibilities indicated; an assessment of actual damage to the environment, if applicable; an assessment of the scope and magnitude of the incident; a description of the immediate actions that have been initiated to clean up the affected area and prevent a recurrence of a similar incident; and an implementation schedule for undertaking longer-term measures to effect cleanup and avoid recurrence of the incident, if applicable.

A major equipment malfunction is defined as an instance whereby a system control or equipment malfunction occurs that could result in an impact adverse to the environment or public health that prevents the continual processing of waste in compliance with this Permit. In the case of such an emergency situation, the Permittee shall undertake corrective actions immediately and shall notify the Department within three (3) days.

The notification shall outline the cause of malfunction, the corrective action taken, and the anticipated repair time. Wastes that cannot be accepted at the facility due to equipment or system malfunction or the occurrence of an emergency situation, or wastes already in storage at the facility that cannot be processed due to a long-term facility outage, shall be disposed of in accordance with the approved District Solid Waste Management Plans, at the facility designated to receive such wastes.

27. Security

Access to the site shall be restricted to facility personnel and authorized visitors only. Security procedures shall be implemented that provide for an effective means of controlling entry and exit at all times. Guards, attendants, visual monitors or locked gates shall be utilized at all site entrance and exit points. Security fencing with gate controls shall be maintained around the entire facility perimeter. The fencing shall be metallic chain link, or its equivalent, and shall extend to a height of at least seven feet.

28. Non-Processible, Process Residue and Recovered Metals Handling and Storage

All non-processible waste materials, recovered metals and process residues shall be stored within the confines of an enclosed facility building at all times prior to removal from the site. Exterior storage of non-processible waste materials, recovered metals and process residues on the site is expressly prohibited.

Interior storage of ash residue and recovered metals shall be restricted to the ash removal facility and ferrous metal storage building. Storage of ash residue and recovered metals in truck bodies or containers is allowed on the tipping floor, but is limited to only those hours when waste deliveries are not allowed per Condition Number 1l.a. of this Permit.
Interior storage of unprocessible bulky waste materials shall be restricted to the designated areas on the tipping floor.

Overhead (roll-up) doors and personnel doors on the ash and ferrous metal storage building shall be kept closed at all times except for the actual passage of vehicles or personnel. Specifically, these doors shall not remain open for purposes of ventilation, comfort cooling, clearing of dust-laden air, or similar reasons.

Before exiting the ash and ferrous metal storage building, all vehicles must be cleaned to prevent the tracking of ash residue beyond the building.

29. Process Residue-Disposal Approval

Throughout the effective term of this Permit, the following shall be implemented and maintained for facility operations:

a. A valid contract with the owner(s) of landfills designated to receive bypass waste, non-processible waste, and non-hazardous ash

residue, and the haulage firm(s) designated to handle said materials. Copies of any new contracts shall be submitted to the Department, when executed.

b. A final contingency plan for the secure handling, storage, transprt and disposal of ash residue that may be found to be hazardous after analysis, and any suspect hazardous waste segregated from the incoming waste received at the facility.

i. As part of the final contingency plan, a formal contract shall be executed and maintained with a licensed hazardous waste disposal facility for the purpose of disposing any ash residue generated that may be proven hazardous after analysis, as well as any suspect hazardous waste segregated from the incoming waste received at the facility. Copies of any new contracts shall be submitted to the Department, when executed.

ii. The Permittee shall maintain written procedures f or the hazardous waste manifest program that will be followed, in accordance with Federal and State requirements. Ash residue and any unacceptable waste materials that may be found to be hazardous after analysis, shall be transported by a licensed hauler to the licensed hazardous waste disposal facility retained by the Permittee for that purpose.

c. A finalized plan shall be maintained for the secured storage of ash residue, pending the receipt of the analytical results used in the classification of the residue for disposal, during any ash residue recharacterization analysis that may be required. If such storage cannot be accommodated and/or approved by the Department, residue generated during any such period shall be manifested and transported as hazardous waste and disposed of in accordance with its classification and the applicable laws in the State of disposal.

30. Residual Ash Monitoring Program

A residual ash-monitoring program shall be maintained by the Permittee for the purpose of assessing the chemical characteristics of the residue ash generated by facility operations.

As a minimum, this monitoring program shall make provision for the following:

a. A sampling and analysis regimen that shall consist of the following, unless otherwise directed by the Division of Solid and Hazardous Waste:

i. Confirmatory Analysis - Once the residue stream has been characterized as to its hazardous/nonhazardous characteristics (see ii. below), during each subsequent month of facility operation, daily composite samples shall be collected, and further composited into a representative monthly composite sample. Each of the monthly composite samples shall be analyzed for the following test parameters using Toxicity Characteristic Leaching Procedures (TCLP):

Arsenic	Lead
Barium	Mercury
Cadmium	Selenium
Chromium	Silver

Additionally, the representative December monthly composite sample shall also be analyzed for total 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), using methods acceptable to the Department.

The Permittee shall retain an equivalent portion of each monthly composite sample collected, so that the Department may

conduct follow-up analyses when necessary. The samples retained shall be clearly marked for identification, appropriately preserved using approved techniques, and stored at the facility for a period of sixty (60) days from the date the composited sample is transferred to the laboratory for analysis.

The Permittee shall dispose of the facility generated ash residue at a facility authorized and permitted to receive the waste type identification number assigned to the ash residue pursuant to classification through analysis, as specified in the Essex County District Solid Waste Management Plan.

ii Re-characterization Analysis - A new eight (8) week ash residue characterization period may be required by the Department if: there is a significant change in facility processes and/or operations; if there is a significant change in the type of waste(s) received for disposal at the facility; or if the results of the Confirmatory Analysis demonstrate that one or more of the parameters exceed the TCLP regulatory limits or exceed one part per billion of 2,3,7,8-TCDD.

Re-Characterization Analysis will be parameter specific in the instance where the Confirmatory Analysis indicates concentrations in the sample extract are above the defined regulatory threshold f or that parameter, resulting in that waste residue requiring reclassification as a hazardous waste, or where the concentration of 2,3,7,8-TCDD is found to be equal to or in excess of one part per billion. Otherwise, the full spectrum of listed TCLP parameters will be required along with total 2,3,7,8-TCDD.

During any new eight-(8) week characterization period, representative composite samples shall be collected on a daily basis and further composited into representative weekly samples. The Permittee shall retain an equivalent portion of each weekly composite sample collected during this eight-(8) week period so that the Department may conduct follow-up analyses when necessary. The samples retained shall be clearly marked for identification, appropriately preserved using approved techniques, and stored at the facility for a period of sixty (60) days from the date the composited sample is transferred to the laboratory for analysis.

During the eight (8) week residue Recharacterization period, each week's residual ash shall be stored separately until the analytical results from that week's composite sample are received, and a determination is rendered on the hazardous or non-hazardous nature of the material.

If the results of the analyses equal or exceed the TCLP parameter specific regulatory threshold, or equal or exceed one (1) part per billion of 2,3,7,8-TCDD, or if the residue material is otherwise determined to be hazardous by the Division of Solid and Hazardous Waste based upon the analytical results, that ash shall be disposed of at the hazardous waste disposal facility secured by the Permittee for that purpose pursuant to Condition Number 29 of this Permit.

If the material is determined to be non-hazardous, it shall be disposed of at the landfill designated to receive that waste type, as specified at N.J.A.C. 7:26-6 and in the Essex County District Solid Waste Management Plan.

At the completion of the eight (8) week period of the Re-Characterization Analysis, the sampling and analysis regimen outlined for Confirmatory Analysis shall not be reinstituted without express approval from the Division of Solid and

Hazardous Waste.

b. All analyses called for as a condition of this Permit shall be performed by a laboratory approved and/or certified by the Department for those specific analyses. All samples shall be collected from the ash residue conveyor after the ferrous recovery system, at the discharge point to the residue storage bunker. Samples collected for analytical purposes shall contain both bottom and fly ash wastes in a mixed ratio representative of the composite ash residue slated for disposal. To prepare the daily composite samples, one grab sample of sufficient size and of equal proportion shall be collected every hour and ultimately composited into the representative daily sample. The resulting daily samples shall be further composited into weekly or monthly samples (as appropriate) and a minimum of four (4) samples shall be taken from the composite for analyses.

Analyses shall be performed in accordance with the procedures outlined in the most recent edition of Test Methods-- for Evaluating Solid Waste - Physical/Chemical Methods, U.S. EPA publication SW-846. Results shall be subject to statistical analysis as outlined in this same publication. The Permittee shall submit each set of analytical results, with the appropriate statistical analysis, to the Division of Solid and Hazardous Waste immediately upon the receipt of said results. The following information shall accompany the analytical determinations:

i. The date(s), time(s) and place of sampling and analysis;
ii. Chain of custody for all samples collected;
iii. The name(s) of the individuals who performed the sampling, compositing and analysis;
iv. The sampling and analytical methods used and/or protocols followed (include the minimum detection levels of the parameters for analysis being undertaken; and in the case of TCLP determinations, the initial and final pH of the sample); and
v. The dated signature and certification of the sampling and analytical report by an authorized agent of the Permittee.

c. The Permittee shall retain all analytical reports at the facility for a period of five (5) years from the date of analysis.

d. The Permittee shall increase the monitoring frequency and/or expand the list of parameters for which testing is to be performed, should the waste types or quantities of waste types received for processing be significantly altered. The Department reserves the right to alter, at its discretion, the list of test parameters, the methods of sample collection, the analytical procedures employed, and the frequency of sampling and analysis, as is deemed necessary.

The Permittee may petition the Department to reduce the number of test parameters specified herein by applying qualitative knowledge of incoming waste streams. Further, if the Permittee has demonstrated through testing that the concentration of any given parameter is found to be consistently below detection levels, the Permittee can petition the Department to eliminate that parameter from subsequent analysis.

31. Ash Residue Removal

All ash residue and recovered metal removal truck bodies or containers shall be sealed to prevent leakage, and shall not be filled to levels that permit overflow or spillage during transport. The ash residue removal truck bodies or containers shall be covered to prevent spillage or scattering by wind during transport. Trucks removing recovered metals shall also be covered to prevent spillage during transport, if the material is loaded above the level of the container or truck body. Trucks removing recovered metals, which are loaded in a manner that the material

does not extend above the level of the container or truck body, are not required to be covered.

Ash residue and recovered metal loading shall be conducted solely within the confines of the ash removal facility and. ferrous metal storage building in a controlled manner that minimizes dusting and prevents the tracking of ash to the exterior of the building.

Exterior storage of ash residue or recovered metal in loaded trucks in prohibited.

To the maximum extent possible, ash residue removal operations by truck shall be conducted during periods of off-peak traffic on the surrounding public roadways, and shall utilize major arteries that transgress non-residential areas wherever possible.

32. Operations Records

The Permittee shall maintain records of facility operations on a daily basis. The Permittee shall submit a monthly summary report of the daily totals for the reportable items listed below, which shall also include the monthly totals for each item. This report shall be submitted to the Division of Solid and Hazardous Waste before the 15th of the following month. All such reports shall be signed, certified, and dated by an appropriate authorized agent for the facility. The information submitted shall include, but not be limited to the following:

a. The weight and origin (by County) of solid waste delivered to the facility for each waste type authorized by this Permit;

b. The weight of unprocessible solid waste removed for alternate disposal, and the facility receiving that waste for disposal;

c. The weight of ash residue removed for disposal, and the facility receiving the residue for disposal;

d. The weight of recovered metal removed and the facility receiving the recovered material;

e. The quantity of steam generated (in pounds) f or each combustion unit over each discrete block average four (4)hour period of time; and

f. The total electrical energy generated (in kilowatt-hours per day) and the net electrical energy exported.

Operations records shall be maintained on the premises for a five-(5) year period, and shall be made available for inspection by Department personnel, upon request.

All printed or electronically recorded records generate%.4 by the facility's monitoring and control systems through log printers, strip-chart recorders or other means, shall also be kept on file at the facility for a period of at least five (5) years from the date of data collection, and such records shall be made available for inspection by the Department upon request.

33. Plans On-Site

One complete set of the following documents shall be kept on file at the facility, and shall be available for inspection by Department personnel or its designated representatives:

a. The Environmental and Health Impact Statement, with Appendices and Addenda;

b. Plans and drawings of record;

c. Final Operations and Maintenance Manuals;

d. The applications and support documents for all permits obtained;

e. This Permit with its conditions for operation; and

f. All other permits with their conditions for construction and operation.

34. Right of Entry

The Permittee hereby agrees and authorizes Department personnel or the Department I s designated representatives to make whatever inspections, and examinations of all premises occupied by the facility which may be impacted by the activities authorized by this Permit whenever these representatives, in their discretion, consider such an inspection or examination necessary to determine the extent of compliance with the conditions of this Permit. Any refusal to allow entry to the Department's representatives shall constitute grounds for either suspension or revocation of this Permit.

35. Accommodations for Department Inspectors

The Permittee shall provide permanent of f ice space at the facility to accommodate a Department inspector on a daily basis during all facility operating hours. The Permittee shall allow entry to the inspector at any time during the facility operating hours. The inspector's work space shall be equipped with the appropriate computer hardware, including a display screen, that will allow for access to the facility's automated process monitoring, control and information system. The computer hardware system shall allow the inspector to observe the same operational and control information that is available to the facility operations station in the central control room.

36. Duration of Permit

This solid Waste Facility Permit is for a maximum period of five (5) years from the date of its issuance. This Permit may be renewed at that time upon proper application, in accordance with N.J.A.C. 7:26-2.7.

37. Conformance with the Solid Waste Management Plans

This Permit is conditioned upon conformance with all requirements of the Essex County and State Solid Waste Management Plans, as adopted and promulgated pursuant to N.J.S.A. 13:lE-1 et seq. No wastes from any New Jersey Solid Waste Management District, other than those directed to this facility under said plans, may be accepted for processing/disposal. Similarly, waste residues generated by facility operation shall be disposed of in conformance with N.J.A.C. 7:26-6 and these solid waste management plans.

Failure to comply with any or all limitations heretofore mentioned will result in the Department seeking relief under N.J.S.A. 13:IE-1 11 M., the Solid Waste Management Act. Specifically, each day of failure to comply shall constitute a separate violation on the basis of which a penalty shall be assessed and may result in loss of operating authority, pursuant to N.J.S.A. 13:lE-12.

The issuance of this Permit and the conditions of operation identified herein shall not be interpreted as relieving the Permittee of his responsibility to secure and maintain all other applicable Federal, State and local permits, or similar forms of authorization, relating to the construction and operation of this facility.

Sep 30, 1997

Mr. Alan P. Iantosca, Plant Manager
American Ref-Fuel Company of Essex County
183 Raymond Boulevard
Newark, New Jersey 07105

Re: Essex County-Resource Rec6very Facility
Modification of Condition Number 15.b. of Solid Waste Facility
Permit Number 0714000341 (Issued on November 17, 1995)

Dear Mr. Iantosca.:

On June 12, 1997, the Division of Solid and Hazardous Waste published a Notice of Opportunity For Public Hearing concerning the tentative decision to modify condition number 15.b. of the above-referenced Permit. Permit condition number 15.b limited to the operation of the Essex County Resource Recovery Facility to the processing of no more than 914,325 tons of waste per year with the provision that the facility would be allowed to process up to 985,500 tons per year "should the Essex County Freeholders elect to formally amend the approved District Solid Waste Management Plan in accordance with N.J.S.A. 13:lE-23". For the reasons listed in the referenced Notice, the Department determined that the administrative process of amending the Essex County Solid Waste Management Plan, required by Permit condition number 15.b. was inapplicable, and proposed to eliminate the requirement for that administrative process from the Permit.

During the public comment period, the Department received written comments from one individual regarding the tentative decision to modify Permit condition number 15.b. Enclosed you will find the "Response To Comments" document prepared to address the comments received during the comment period. Upon consideration of the project administrative record and the public comments received, the Department has determined that condition number 15.b of the Solid Waste Facility Permit will be modified as originally proposed in the June 12, 1997 Notice of Opportunity or Public Hearing. Therefore, the Department is hereby taking final action to formally modify Permit condition number 15.b. As a result, the facility will be allowed to operate at an annual processing rate not to exceed 985,500 tons of waste per year. Please note that a typographical error in the original November 17, 1995 Permit condition number 15.b. has also been corrected at this time. Specifically, reference to "discrete block average four (4) 1 hour period of time" has been corrected to "discrete four (4) hour block period of time".

As of the date of this letter, Permit condition number 15.b. is hereby modified to read as follows:

b. The facility shall not process waste in excess of 985,500 tons per reporting year as determined by means of the facility truck scale records, used in conjunction with a pit level determination made at the beginning of each reporting year to adjust for the storage differential. For purposes of definition, the reporting year shall begin on January 1, 1996 and end on December 31, 1996 (the quantity of waste charged annually shall be prorated over that remaining portion of the calendar year of the facility operation at the time of permit renewal, so that the annual limit established herein shall not be exceeded). -The facility's rate at which it can process solid waste shall be further limited to a corresponding maximum steam production rate of 990,000 pounds per boiler (at a temperature of approximately 750 degrees F. and a pressure of approximately 630 psig) over any discrete four (4) hour block period of time (12-4 AM, 4-8 AM, 8-12 PM, etc.)

Please attach this Permit modification letter to your original copyof the Solid Waste Facility Permit. If you have any questions regarding this matter, please

feel free to contact Mr. Kenneth Frank of my staff at (609) 984-6664.

Sincerely,

John A. Castner, P.E., P.P.
Acting Assistant Director
Office of Permitting and
Technical Programs

KF/kf
encl.
c: G. Sondermeyer, DSHW
R. Confer, DSHW
T. Bartle, DSHW
K. Frank, DSHW
M. Suchan, AM.Ref-Fuel
P. Pohlot, Am. Ref-Fuel
R. Belonzi, Solid Waste Compl. & Enf.
I. Atay, BAQE
B. Sullivan, Air & Env. Qual. Compl. & Enf.

ENVIRONMENTAL AND HEALTH IMPACT STATEMENT APPROVAL

Under the provisions of N.J.S.A. 13:lE-26, known as the Solid Waste Management Act, Environmental Impact Statement Approval is hereby issued to:

AMERICAN REF-RUEL COMPANY OF ESSEX COUNTY

FOR THE PURPOSE OF OPERATING A:	Resource Recovery Facility Mass Burn incinerator
ON LOT NO.(S):	28, 30, Parts of: 20, 34, 36, 40, 50, 52, 60, 60A, 80; 92, Parts of: 18, 29, 32, 35A, 80, 80A. 90
ON BLOCK No. (s)	5000; 5001
IN THE MUNICIPALITY OF:	City of Newark
COUNTY:	Essex

The Department has reviewed the Permit Renewal Application and accompanying environmental impact information pursuant to the Solid Waste Management Act, N.J.S.A. 13:lE-1 et seq., specifically N.J.S.A. 13:lE-26, and the following findings are made:

1. The continued operation of the above named facility is consistent with the adopted and approved Essex County District Solid Waste Management Plan.

2. The Resource Recovery Facility will be operated pursuant to the standards adopted and promulgated, by the Department pursuant to N.J.S.A. 13:lE-1et seq.

This Approval shall become null and void upon the expiration or revocation of any Solid Waste Facility Permit issued by this Division to the particular solid waste facility herein identified.

The issuance of this document shall not be construed as authorization to operate a solid waste facility. operations may continue only upon obtaining a renewed Solid Waste Facility Permit issued by the Division of Solid and Hazardous Waste pursuant to N.J.S.A. 13:lE-1 et seq.

This Approval has been granted in conformance with the existing Rules and Regulations of the Division of Solid and Hazardous Waste. Should changes in these Rules become effective, the Department reserves the right to re-evaluate said Approval and require modifications as deemed appropriate.

11/17/95
Date

Signed by Robert C. Ciolek, Assistant Director
Robert C. Ciolek
Assistant Director
Division of Solid and Hazardous Waste